

Appl. No. 09/982,304
Amdt. Dated November 28, 2005
Reply to Office Action of July 28, 2005

REMARKS

Applicants thank Examiner for acknowledging receipt of foreign priority document, Japanese Application No. JP2000-318081, that has been submitted pursuant to 35 U.S.C. § 119 and/or PCT Rule 17.2(a).

Applicants have amended the attached drawings for Figures 11, 12a, 12b, and 12c to include the designation of "Prior Art" as required by MPEP §608.02(g).

Claims 4-10 have been added in order to claim further subject matter as disclosed in the specification.

Without conceding the propriety of the Examiner's position, and solely to expedite prosecution, claim 3 has been cancelled without prejudice or disclaimer.

As requested by Examiner, the Title has been amended to "SOLID-STATE IMAGE-PICKUP DEVICE HAVING PRIMARY COLOR AND GRAY COLOR FILTERS AND PROCESSING MEANS THEREOF."

Applicants respectfully request reconsideration of Examiner's rejection of claims 1 and 2 under 35 U.S.C. §103(a). Examiner has rejected these claims in view of the cited prior art references of *Fujimura et al.* (U.S. Patent No. 6,900,838) in view of *Yoneyama et al.* (U.S. Patent No. 5,506,618). *Fujimara* is directed to the use of neighboring green-filtered pixels in order to generate a color component signal for a particular pixel. (See the abstract). While *Fujimara* does disclose the replacement of a green filter of a particular pixel with a white filter, *Fujimara* discloses several equations (1, 2, 2' in Figures 10 and 11) for generating a green component signal level for that white color filter pixel. At no point does *Fujimara* teach or suggest the use of carrier balance means in order to ensure that the image signal

Appl. No. 09/982,304
Amdt. Dated November 28, 2005
Reply to Office Action of July 28, 2005

generated by the gray image filter has substantially the same frequency characteristic as the signals generated by the other three primary color filters. In fact, at no point does *Fujimara* teach or suggest the use of the signal generated by the white-filtered pixel at all. Rather, *Fujimara* teaches the use of interpolation techniques in order to generate a green signal level for a white filtered pixel based on surrounding green filtered pixels. The generated green level signal is then used in the ordinary generation of a captured image. Accordingly, not only does *Fujimara* not teach or suggest Applicant's currently claimed invention, it actually teaches away from it.

In regard to the *Yoneyama* reference, column 7, lines 36 – 45 discloses the use of gray filters, but fails to teach or suggest the use of carrier balance means in order to ensure that the gray filter has substantially the same frequency characteristic as the other three primary color filters. Accordingly, Applicants submit that the reference fails to teach or suggest Applicant's currently claimed invention.

Applicants submit that the *Nakai* reference (U.S. Patent No. 6,768,511) fails to make up for these deficiencies. More specifically, *Nakai* fails to teach or suggest a carrier balance means for ensuring that the gray filters have substantially the same frequency characteristic as the other three primary color signals.

Examiner's remaining references cited but not relied upon, considered either alone or in combination, also fail to teach applicant's currently claimed invention. In light of the foregoing, Applicants respectfully submit that all claims now stand in condition for allowance.

Appl. No. 09/982,304
Amdt. Dated November 28, 2005
Reply to Office Action of July 28, 2005

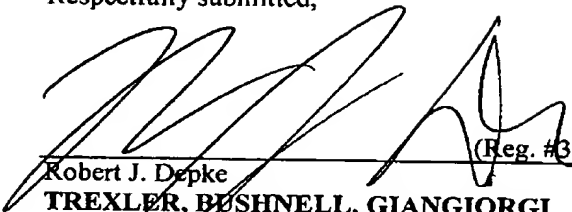
Drawing Amendment:

Applicants respectfully request the amendment of Figures 11, 12a, 12b, and 12c to include the designation of "Prior Art" as required by MPEP §608.02(g) because only that which is old is illustrated. Attached are the drawings at issue with changes in red ink and replacement sheets with changes in black and white.

Appl. No. 09/982,304
Amdt. Dated November 28, 2005
Reply to Office Action of July 28, 2005

Respectfully submitted,

Date: 11/28/05


(Reg. #37,607)
Robert J. Depke
**TREXLER, BUSHNELL, GIANGIORGI
BLACKSTONE & MARR, LTD.**
105 W. Adams Street, 36th Floor
Chicago, Illinois 60603
Tel: (312) 704-1890
Attorney for Applicants